We chose to discriminate 13 prominent vertical changes in the kaolinite content and lettered them from A to M. Correlation C is subparallel to the upper boundary of sequence 1. Correlation I is very close to the upper boundary of sequence 2, and correlation L runs almost parallel with and close to the base of sequence 4. Since sequence boundaries may be regarded to be isochronous datum levels, we conclude that changes in the source area influenced clay mineral assemblages of northern Switzerland almost simultaneously as compared with the average sedimentation rate, and that our mineralostratigraphic correlations are near-isochronous. The mineralostratigraphic correlations were tied in with the biochronologic ammonite scale by analysis of the clay minerals of the Oxfordian and of the lower Kimmeridgian in cephalopod facies of canton Aargau. The resolution of the mineralostratigraphic correlations is of the order of one ammonite subchron.

The mineralostratigraphic correlations A to C confirmed that the St-Ursanne Formation is time-equivalent to the Birmenstorf Member as was concluded before on the strength of ammonites. The Natica Member is indeed coeval with the Effingen Member just as Bolliger and Burri inferred. The Hauptmumienbank Member is the same age as the Steinibach Beds, and these beds are, according to the mineralostratigraphic correlation I, time-equivalent to the Geissberg Member. Mineralostratigraphic correlation is the only means by which the position of the upper boundary of sequence 2 could be recognized in the shallow water realm. Subdivision of sequence 2 is possible only in the shallow water realm, whereas subdivision of sequence 3 can be done only in the "basin". Correlation L suggests that the boundary between the Balsthal Formation and the Reuchenette Formation almost coincides with the Oxfordian/Kimmeridgian boundary.

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